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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,519	01/18/2002	Hirohito Okuda	520.41089X00	7762

20457 7590 10/13/2005

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EXAMINER

BALI, VIKKRAM

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,519

Applicant(s)

OKUDA ET AL.

Examiner

Vikram Bali

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/25/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In response to the amendments filled on 7/25/2005, all the amendments to the claims has been entered and the action follows:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 7 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Samuels (US 6483937).

With respect to claim 1, Samuels discloses the inspection system that divides the area into partial inspection areas, sets inspection conditions and inspecting the areas per the inspection conditions, (see figure 3, the first and second patterns as the areas and the design layout for the pattern areas and the inspection station for inspection of

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the patterns) as claimed. However, he fails to explicitly disclose the inspection area setting unit calculates distribution of wiring density in an area to be inspected according to layout data, and divides the area to be inspected into the partial inspection areas, with a given partial inspection area having a substantially same calculated wiring density range throughout, as claimed. But, in col. 1, lines 11-16, Samuels states that the active and inactive areas on a device are present, the active areas are the one with the wiring present "wiring density in an area" and inactive areas where the circuit is not present i.e. the wiring density is very low there by dividing the device on the basis of "substantially same calculated wiring density", as claimed. Therefore, it would have been obvious to one ordinary skilled in the art at the time of invention to simply use the method of wiring density to attain the two different areas on the device before inspection of the device because that will make it more rapid to inspect the device as there will be less number of areas to be inspected.

With respect to claim 2, he further discloses the areas to be inspected according to the layout pattern, (see figure 3, and figure 4, numerical 150) as claimed.

With respect to claim 3, he further discloses dividing the areas into cell portion and non cell portions, (see figure 3, the first and the second pattern are active "cell" and inactive "non cell" portions) as claimed.

With respect to claim 7, Samuels further teaches the calculation of the range of each function and distribution of the wiring density, and different criticality (see figure 3 the first pattern and the second pattern these are read as the areas depending upon the

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layout pattern that have the wiring as the active section and the other as the non wiring as the non active patterns, or different criticality see col. 1, lines 13-17) as claimed.

Claims 41-42 are rejected for the same reasons as set forth in the rejection of claim 1, because claims 41-42 are claiming the similar subject matter in different combinations as claimed in claim 1.

4. Claims 4-6, 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samuels (US 6483937) in view of Applicants Admitted Prior Art (herein after AAPA).

With respect to claim 4 Samuels discloses the invention substantially as disclose and as describe above. However, he fails to disclose the display screen for overlaying at least the defect information, as claimed. AAPA describes the art in paragraph 0018, a display system for displaying the defect position, as claimed. It would have been obvious to one ordinary skilled in the art at the time of invention to simply combine the two references as they are analogous because they are solving the similar problem of electronic circuit inspection. The incorporation of the screen display into the Samuels system is very obvious as the Samuels system is done by the computer and it is a common knowledge in the art to have a display system in the computer system.

With respect to claims 5, 6 and 15, AAPA teaches the division of the area to be inspected into defect output area and non output area, and cell portion and non cell portion, (see paragraph 0024 and paragraph 0007) as claimed.

With respect to claims 10-12, AAPA further teaches the editions of the partial inspection area, display screen with the inspection areas or the defects, (see paragraphs 0025, 0027 for the details) as claimed.

With respect to claims 13 and 14, AAPA further teaches the classifications of the defects according to the true or false report, (see paragraph 0023 and 0027) as claimed.

Claims 16-40 are rejected for the same reasons as set forth in the rejection of claims 1-7 and 10-15, because claims 16-40 are claiming the similar subject matter in different combinations as claimed in claims 1-7 and 10-15.

Response to Arguments

5. Applicant's arguments with respect to the independent claims 1, 16, 20, 22 and 32 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments filed 7/25/2005 have been fully considered but they are not persuasive. Applicant argues that the "Background of the Invention" cannot be considered as the "admitted prior art". Examiner would like to point out that the section Background of the Invention starting paragraph [0003] calls for the conventional methods as use in the pattern inspections, and that's why the examine use the paragraphs as the admitted prior art because applicant does admit that the followings are the conventional methods.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

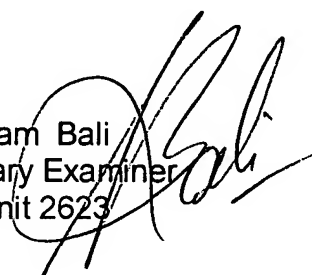
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 571.272.7415. The examiner can normally be reached on 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571.272.7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vikkram Bali
Primary Examiner
Art Unit 2623



vb
October 5, 2005